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ABSTRACT

Categories of effective and ineffective behavior in regard to Goal Eight of the Quality Education Program (regarding vocational development) are listed. Both the rationales for areas of effective student behavior and the categories of teacher strategies are also included. (See TM 001 375 for project description.) (MS)

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BOOKLET 8

DESCRIPTION

QUALITY EDUCATION PROGRAM STUDY

VOCATIONAL DEVELOPMENT

PENNSYLVANIA
GOAL EIGHT

AN ESEA TITLE III PROJECT

COORDINATED AND DIRECTED BY:
Office of the County Superintendent
Bucks County Public Schools
Division of Curriculum and Instruction

IN COOPERATION WITH:
The Pennsylvania Department of Education

1

JUNE 1971

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PUBLIC, PRIVATE, AND PAROCHIAL SCHOOLS

Teachers, administrators, students, and parents in public, private, and parochial schools in the Commonwealth generally, and specifically the pilot areas of Allegheny, Beaver, Bucks, Erie, Luzerne and Westmoreland Counties and the Cities of Erie and Pittsburgh.

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For technical assistance with the Critical Incident Technique, data collection procedures, student and teacher behavioral specifications and related rationales.

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PREFACE

The Bucks County Schools have for some time been committed to improving the quality of the educational offerings for its youth. Characteristic of that commitment was the manner in which officials of the Pennsylvania Department of Education, Bucks County Public Schools, Luzerne County Public Schools, Allegheny County Public Schools, Penn-Trafford School District, Pittsburgh School District, and Erie School District joined together in 1966 to draft the proposal for the Quality Education Program Study (QEPS). Conceived as a complement to Pennsylvania's pioneering efforts to assess the quality of its schools, the study was designed to define and clarify the Ten Goals of Quality Education adopted by the State Board of Education in 1965.

The following booklet is a part of the story of how Q.E.P.S. went about its ambitious task, and the results of that effort. We trust this statement of the behavioral definitions for Pennsylvania's Ten Goals of Quality Education will serve as a guide for the evaluation and improvement of teaching and learning in the schools of the Commonwealth.

Dr. George E. Raab
County Superintendent
Bucks County Public Schools

INTRODUCTION

In recent years there has been an increased interest in goal definition in education. Most efforts toward the establishment and definition of goals seems to take the form of generalizations or descriptive statements. Little, if any, data is available concerning empirical methods for defining educational goals.

Until recently, the "Goals for Quality Education" were not defined in a coherent form. An analysis of this problem revealed that most stated goals have little exact meaning for the practicing educator. Frequently, goals are stated in such general terms that any educator could convince himself that these goals are the purpose that guide his program. Goals are statements of general educational intents. While it is not absolutely necessary for goals to be stated in performance terms, the more clearly these statements are described, the more readily we can develop valid indicators of pupil behavior.

The first step in constructing an instructional program centers upon the need for a set of objectives. An objective refers to the performance or change in behavior a pupil is to exhibit upon completion of instruction. Therefore, meaningful objectives should relate to the "Goals for Quality Education". If one is "to measure objectively the adequacy and efficiency" of educational programs, these objectives must be described in terms of not what the schools do, but in what children do. One must itemize the kinds of behavior that add up to the goals for quality education if we are ever to know how children progress toward the goals or how efficient an educational program may be in furthering such

progress. Specifying goals in this way poses practical problems.[1]

The formulation and adoption of Pennsylvania's Goals of Quality Education represents a major step toward the definition of the State's educational intents, making possible an assessment of its efforts toward the fulfillment of those intents. In an effort to further increase the utility of the goals to the practitioner and evaluator, the Quality Education Program Study was proposed to review, define, and clarify the Ten Goals. Funded in 1968 under E.S.E.A. Title III, Q.E.P.S. made a unique departure from the usual "armchair philosophy" or logical approach to goal definition by deciding to employ the Critical Incident Technique. This technique was used to collect empirical data to define the goals.

The QEPS staff collected critical incident data from teachers, students, and parents from various urban, suburban, and rural areas throughout the State. These data included both student behaviors indicative of achievement of the Ten Goals and teacher behaviors effective in helping students achieve these Goals.

The resulting descriptions or definitions for each of the Ten Goals include: (1) Student Behaviors, (2) Rationales or narrative explanations, and (3) Teacher Strategies. Also, for each Goal QEPS has developed needs assessment instruments to provide the practitioner with a mechanism to systematically gather information to assess its needs and assign priorities to those needs.

[1] Educational Testing Service. A Plan for Evaluating the Quality of Educational Programs in Pennsylvania, Volume One: The Basic Program. Princeton, New Jersey: ETS, Henry S. Dyer, Project Director, Chapter I, pages 1-4 (June 30, 1965).

It is hoped that the resulting products of three years of intensive work devoted to defining Pennsylvania's Ten Goals of Quality Education will provide various segments of the educational community with information and the means to continue to improve the quality of education for the students of Pennsylvania.

Raymond Bernabei
Assistant Superintendent
Bucks County Schools

Donald L. Wright
Project Director, Q.E.P.S.

PROJECT REPORTS

The following is a listing and brief description of the reports produced by the Quality Education Program Study:

Booklet A — Project Description
A description of the project including a background and overview and a detailed report of procedures used to collect, handle, and analyze the data. Includes an appendices.

Booklet B — General Needs Assessment
Instructions
General Needs Assessment Instrument for the Ten Goals.

Booklet C — Characteristics of Incidents and Their Reporters
Gives a tabulation of various characteristics of reporters for each category and sub-category of student behavior.

Goals One through Ten each have two reports. The first is a Description of the goals, containing three basic components: (1) the categories of student behavior, (2) rationales for the areas of effective student behavior, and (3) related teacher strategies. The second report is related to the Needs Assessment of that goal and contains: (1) Instructions, (2) the general needs assessment instrument for that goal, and (3) an analysis of instruments related to that goal. The booklets for the Ten Goals are:

	Goal One - Self Understanding
Booklet 1	Description
Booklet 1A	Needs Assessment
	Goal Two - Understanding Others
Booklet 2	Description
Booklet 2A	Needs Assessment
	Goal Three - Basic Skills
Booklet 3	Description
Booklet 3A	Needs Assessment

	Goal Four - Interest in School and Learning
Booklet 4	Description
Booklet 4A	Needs Assessment
	Goal Five - Good Citizenship
Booklet 5	Description
Booklet 5A	Needs Assessment
	Goal Six - Good Health Habits
Booklet 6	Description
Booklet 6A	Needs Assessment
	Goal Seven - Creativity
Booklet 7	Description
Booklet 7A	Needs Assessment
	Goal Eight - Vocational Development
Booklet 8	Description
Booklet 8A	Needs Assessment
	Goal Nine - Understanding Human Accomplishments
Booklet 9	Description
Booklet 9A	Needs Assessment
	Goal Ten - Preparation for a World of Change
Booklet 10	Description
Booklet 10A	Needs Assessment

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GOAL EIGHT

QUALITY EDUCATION SHOULD HELP EVERY CHILD UNDERSTAND THE OPPORTUNITIES OPEN TO HIM FOR PREPARING HIMSELF FOR A PRODUCTIVE LIFE AND SHOULD ENABLE HIM TO TAKE FULL ADVANTAGE OF THESE OPPORTUNITIES.

"This goal implies that most children can profit from some form of education beyond high school, whether it be a four-year college, a school of nursing, a community college, a technical institute, or the like. The youngster should be aware of these opportunities and seek out the particular kind of education best suited to his talents and interests. This goal also implies that the school will provide the child with the kind of guidance that will enable him to do so.

Furthermore, the school should help him discover the practically unlimited possibilities for continuing self-development both in the world of work and in the world of the mind so that he will be motivated to pursue excellence in all the forms of human endeavor that are apprpriate for him."[1]

[1]Educational Testing Service. A Plan for Evaluating the Quality of Educational Programs in Pennsylvania. Volume One: The Basic Program. Princeton, New Jersey: ETS, Henry S. Dyer, Project Director, Chapter I, pages 1-4 (June 30, 1965).

SUMMARY OF THE AREAS OF EFFECTIVE BEHAVIOR

Goal 8: Quality education should help every child understand the opportunities open to him for preparing himself for a productive life and should enable him to take full advantage of these opportunities.

1. STUDENT DEMONSTRATED AN INTEREST IN A PRODUCTIVE LIFE BY VERBAL STATEMENT.

2. STUDENT MADE CAREER OR EDUCATION PLANS.

3. STUDENT PARTICIPATED IN ACTIVITIES THAT SERVED AS PREPARATION FOR HIS SPECIFIC CAREER GOAL.

4. STUDENT DEMONSTRATED A POSITIVE ATTITUDE REGARDING HIS OWN EDUCATION, THEREBY BETTER PREPARING HIMSELF FOR A PRODUCTIVE LIFE.

0. MISCELLANEOUS.

   0.1 Miscellaneous, Goal 8 Effective.

   0.2 Miscellaneous, other than Goal 8 Effective.

Goal 8: Quality education should help every child understand the opportunities open to him for preparing himself for a productive life and should enable him to take full advantage of these opportunities.

CATEGORIES OF EFFECTIVE BEHAVIOR

1. STUDENT DEMONSTRATED AN INTEREST IN A PRODUCTIVE LIFE BY VERBAL STATEMENT.

   1.1 Student expressed, in general terms, personal ambition, a desire for a future goal (excluding the specific desire to go to college).

   1.2 Student indicated that opportunities for some elements of a productive life exist in almost all life situations.

2. STUDENT MADE CAREER OR EDUCATION PLANS.

2.1 Student had or sought course, school, or career information (excluding talking to army recruiters).

2.1-1 Student attended a meeting where college information was made available.

2.1-2 Student investigated a military academy.

2.1-3 Student investigated schools or courses to ascertain what they offer in his interest area.

2.1-4 Student asked a teacher for advice on career or schools.

2.1-5 Student obtained school or career information from or through the school counseling facilities.

2.1-6 Student wrote to a school for information (other than instances which emphasize investigation related to an interest area).

2.1-7 Student read or had literature on colleges or a college (other than instances which emphasize investigation related to an interest area).

2.1-8 Student visited a school (not including instances when this activity occurred in combination with other more informative activities).

2.2 Student stated a specific future goal.

2.2-1 Student voiced an interest in or a desire to go to college.

2.2-2 Student voiced an interest in a specific career.

2.3 Student made the decision to enroll in a technical school, professional school, or specialized school (not included are instances in which the appropriateness of the decision is critical).

2.4 Student made the decision to enroll in a college.

2.5 Student took or planned to take college entrance exams.

2.6 Student made the decision to combine work and college.

Goal 8/Effective

2.7 Student made the decision to combine a personal goal for continuing education with military service (not including investigating a military academy).

2.9 Student made an appropriate career job or school choice, one which was in accordance with his capabilities.

2.9-1 Student appropriately decided to enter a technical or special school.

2.9-2 Student appropriately decided to enter college.

Goal 8/Effective

3. STUDENT PARTICIPATED IN ACTIVITIES THAT SERVED AS PREPARATION FOR HIS SPECIFIC CAREER GOAL.

3.1 Student participated in activities other than in his regular school program, to increase knowledge needed in, or about, a possible future job or career setting (including observation of another performing tasks, or "playing" the job-role).

3.1-1 Student, for career goals, learned about a different culture by studying abroad, by learning the language, or by becoming acquainted with people from the area.

3.1-2 Student applied for or took a job in a career-relevant area.

3.1-3 Student read about or studied career-related subjects (excluding literature specifically providing career information).

3.1-4 Student enrolled in an extracurricular typing course in preparation for future education needs.

3.1-5 Student enrolled in extracurricular reading course in preparation for future educational needs.

3.1-6 Student attended art school in preparation for a career in the field.

3.1-7 Student participated in a career-related extracurricular learning activity: summer school, lessons, or night school.

3.2 Student took a high school course related to career requirements.

3.3 Student worked to "bring up" his grades to meet requirements for further schooling as it related to his career choice.

3.4 Student with a talent or specific career interest placed himself in competition with others having the same aspirations or talents (excluding competition for scholarship money).

3.5 Student worked or saved to make his goals financially possible (including student activities that might result in money or scholarships).

Goal 8/Effective

4. STUDENT DEMONSTRATED A POSITIVE ATTITUDE REGARDING HIS OWN EDUCATION, THEREBY BETTER PREPARING HIMSELF FOR A PRODUCTIVE LIFE.

4.1 Student demonstrated a positive attitude toward school by performing successfully.

4.1-1 Student obtained good grades or made the honor roll.

4.1-2 Student demonstrated he had learned a skill either directly or by helping another learn.

4.2 Student demonstrated a positive attitude toward school and class activities by verbal statement or participation.

4.2-1 Student stated that school was enjoyable or was necessary for his goals.

4.2-2 Student participated in teaching activities (excluding statements of a teaching career interest).

4.2-3 Student suggested a classroom learning activity, such as a discussion, a debate, a project, or a practice review (excluding an offered topic for study based on his personal interest).

4.2-4 Student brought materials, possibly related to classwork, for discussion with the teacher, or with the entire class.

4.2-5 Student asked why a topic was being studied or how it was being studied, or commented upon teaching methods.

4.2-6 Student asked pertinent questions that related to the topic being discussed.

4.2-7 Student demonstrated a desire to participate in learning activities by preparing himself for learning, or by paying attention.

4.2-8 Student participated in a class activity.

4.2-9 Student did the daily assignments or homework.

4.3 Student demonstrated a positive attitude toward school or learning, by doing extra work on assignments, by doing repetitive work to learn, or by doing leisure, self-initiated study.

4.3-1 Student responsibly completed required missed work assignments, or arranged to complete assignments when absent.

4.3-2 Student worked carefully or reworked an effort in order to avoid or to correct errors.

4.3-3 Student improved in effort, motivation, or work.

4.3-4 Student did remedial work on his own time (not including asking for help).

4.3-5 Student tried repeatedly, or practiced, to master a subject or skill.

4.3-6 Student did more than the expected amount of work on project, display, or presentation.

4.3-7 Student did more than the expected amount of work on a written assignment, report, composition, etc.

4.3-8 Student did an unassigned report, including research on a topic of interest to him.

4.3-10 Student spent free or leisure time reading or studying (including proper use of study hall time).

4.4 Student demonstrated an interest in a particular subject by study, verbal statement, or extra work efforts (other than specifically career-related instances).

4.4-1 Student voiced an interest in studying a particular subject, topic, or skill.

4.4-2 Student did extra work or performed extra activities related to a particular subject, topic, or skill (other than specifically career-related instances).

4.4-3 Student purchased equipment or books to help him study a subject.

4.4-4 Student did extra reading in a subject or topic (excluding instances generally described as merely leisure reading).

4.4-5 Student read resource books to obtain more information on a subject, topic, or skill (excluding leisure reading of resource books).

4.4-6 Student arranged for or took part in an educational trip that related to topics of interest to him.

4.4-7 Student asked for help to improve in competence, or to increase his knowledge.

Goal 8/Effective

4.5 Student participated in extracurricular learning activities (other than those specifically career-related).

4.5-1 Student participated in an organized, non-remedial, extracurricular learning situation.

4.5-2 Student participated in an activity that provided him with experience in interacting with or organizing people.

4.5-3 Student watched a specific program on educational TV, or watched TV to learn.

SUMMARY OF THE AREAS OF INEFFECTIVE BEHAVIOR

Goal 8: Quality education should help every child understand the opportunities open to him for preparing himself for a productive life and should enable him to take full advantage of these opportunities.

1. STUDENT DEMONSTRATED A LACK OF INTEREST IN A PRODUCTIVE LIFE BY VERBAL STATEMENT.

2. STUDENT DID NOT MAKE APPROPRIATE CAREER OR EDUCATION PLANS.

3. STUDENT DID NOT PARTICIPATE IN ACTIVITIES THAT WOULD SERVE AS PREPARATION FOR HIS SPECIFIC CAREER GOAL.

4. STUDENT DEMONSTRATED AN INABILITY TO PERFORM WELL, OR A NEGATIVE ATTITUDE REGARDING HIS OWN EDUCATION, THEREBY LESSENING HIS PREPARATION FOR A PRODUCTIVE LIFE.

0. MISCELLANEOUS.

   0.1 Miscellaneous, Goal 8 Ineffective.

   0.2 Miscellaneous, other than Goal 8 Ineffective.

Goal 8: Quality education would help every child understand the opportunities open to him for preparing himself for a productive life and should enable him to take full advantage of these opportunities.

CATEGORIES OF INEFFECTIVE BEHAVIOR

1. STUDENT DEMONSTRATED A LACK OF INTEREST IN A PRODUCTIVE LIFE BY VERBAL STATEMENT.

   1.1 Student could state no life-style preferences or life goals; stated an interest in an undesirable life style; or stated that he felt unable to attain any goal.

Goal 8./Ineffective

2. STUDENT DID NOT MAKE APPROPRIATE CAREER OR EDUCATION PLANS.

2.1 Student did not seek course, school, or career information, or had incomplete or incorrect information in these areas.

2.1-5 Student failed to obtain school or career planning help from or through school counseling facilities.

2.5 Student did not take college entrance exams or other job or career-qualifying tests.

2.9 Student made an inappropriate job, career, or school choice, one which was lesser than or beyond his capabilities.

Goal 8/Ineffective

3. STUDENT DID NOT PARTICIPATE IN ACTIVITIES THAT WOULD SERVE AS PREPARATION FOR HIS SPECIFIC CAREER GOAL.

   3.1 Student rejected a course, school, or extracurricular activity that might further his career goals.

4. STUDENT DEMONSTRATED AN INABILITY TO PERFORM WELL, OR A NEGATIVE ATTITUDE REGARDING HIS OWN EDUCATION, THEREBY LESSENING HIS PREPARATION FOR A PRODUCTIVE LIFE.

4.1 Student demonstrated a negative attitude toward school by performing poorly or by demonstrating a lack of mastery of learned material.

4.1-3 Student demonstrated that he was unable to do assigned work.

4.2 Student demonstrated a negative attitude toward school and class activities by verbal statement, by lack of regular participation, or by ineffective participation.

4.2-1 Student demonstrated a negative attitude or apathy toward school or learning by verbal statement.

4.2-2 Student stated a lack of interest in formal schooling, or voiced a desire to quit school.

4.2-8 Student demonstrated a lack of interest in participating in learning activities by avoiding learning situations, sleeping in class, etc.

4.2-9 Student did not participate in ongoing class activities.

4.2-10 Student misbehaved or acted contrary to school rules.

4.2-11 Student cheated on a test or copied an assignment.

4.2-12 Student did not attend, or came late to, class in a particular subject (excluding instances where dislike of a particular subject is the important aspect).

4.2-13 Student did not attend school.

4.2-14 Student quit school.

4.3 Student demonstrated a negative attitude toward school or learning by not working carefully or neatly, or by avoiding remedial or leisure study.

4.3-1 Student failed to complete assignments on his own.

4.3-2 Student failed to work carefully, correctly, or completely.

4.3-4 Student did not participate in a remedial, repeat, or special class, or did not ask for or make use of help.

4.3-10 Student did not spend free time reading or studying for pleasure.

4.4 Student demonstrated a lack of interest in studying a particular subject.

4.4-1 Student voiced a lack of interest in, or a dislike of a particular subject or skill, or stated that study of the subject was not necessary for his goals.

RATIONALE

Goal Eight - Area 1

STUDENT DEMONSTRATED AN INTEREST IN A PRODUCTIVE LIFE BY VERBAL STATEMENT.

Description

The behaviors in this area are concerned with the student making a verbal comment to an adult (either school personnel, or a parent) that he has some general goals in mind for his future, and that he is willing to take advantage of opportunities as they present themselves in order to better himself or attain these general goals.

Analysis

The behaviors here indicate a strong self-concept and a belief by the student that he possesses the potential for productivity and the necessary motivation to follow up the statement with action.

The behaviors result from the student's observation of the world around him, and imply a maturity level that allows the student to see a productive life as a worthwhile goal for himself, and something to be striven for. Recognition of a need for further education in order to attain a productive life is in evidence in most of the recorded incidents.

It is vital that the student have as accurate an appraisal of his abilities and potential as possible as he progresses through this phase. There is a chance that he may under or over-estimate his potential, and set unrealistic goals for himself. The child's right to phantasize at an early age should be respected. This is a natural phenomenon in a child's early development, and as he progresses chronologically, he will have many experiences with the world around him, and will eventually reach a maturity level that will enable him to begin to make realistic choices concerning himself and his place in society. The child's need for guidance in the

various stages of his development should not be overlooked.

Application

Teachers, either in formal or informal situations, should provide opportunities to students for oral and written expression of what constitutes a productive life.

Subject area teachers should be constantly alert for opportunities to point out the wide range towards which a student can aim his talents. As the student matures, his range should broaden from the narrow views he has as an elementary child, to a wider spectrum of a productive life, as seen through the eyes of a young adult. The teacher may have to interpret these changes to the student.

Case histories of productive people could be pointed out and parallels discussed.

School personnel should be aware of, sensitive to, and take advantage of the enthusiasm exhibited by the student and avoid dampening this enthusiasm with negative comments.

Help should also be given the student in his self-appraisal processes by helping him to look at past accomplishments and by interpretations of certain standardized test materials or inventories which may be available.

Other teacher strategies which may be employed to assure the behavior of this area include:

1. Pointing out to a student how certain basic skill subjects will be useful in the student's chosen or potential career field.

RATIONALE

Goal Eight - Area 1

2. Pointing out and discussing with students the relevance of what one learns in school to everyday living or succeeding in higher education.
3. Discussing or pointing out the value of continuing formal education in some manner through and after high school.
4. Discussing future education in a general way with primary grade students.
5. Attempting to convey to students the desirability of making an early possible career choice.
6. Pointing out to students the opportunities in or appropriateness of careers not necessarily requiring a college education.
7. Conferring with the student in order to develop or increase his self-image, to provide assurances or to urge him to do his best.
8. Conferring informally with students regarding potential or appropriate educational or career choice.
9. Attempting to foster recognized talent, skill, ability or interest in the student.

It cannot be stressed enough that the student become aware of the myriad of ways he can become a productive citizen in our society in a way that is commensurate with his abilities.

For further suggestions see also "Teacher Strategies" section of this booklet, Areas: 1, 2, and 4.

RATIONALE

Goal Eight - Area 2

STUDENT MADE CAREER OR EDUCATION PLANS.

Description

The behaviors of this area are concerned with the student who takes a more positive step toward a definite career or education plan, rather than a general, broad statement as described in Area 1. The student now begins to focus on specifics with regard to educational or career planning, and conducts explorations into schools or careers by utilizing the school's guidance facilities, writing to various schools for information, asking a teacher/counselor for advice about a school or career, reading or sending away for various types of related literature, or by visitations to the various schools themselves.

Analysis

Behaviors in this area occur most frequently in a school setting on the secondary level, but also occur at home during parental discussions. The student has reached a maturity level where he seriously begins to think about his future and the academic preparations necessary for his career plans. He has reached what may be called the exploratory stage. The student has passed from the phantasy stage and is looking for help in his planning.

He has become inquisitive as to the avenues open to him, and wants to explore each of these avenues by various methods e.g. discussion with an adult, sending for materials, visitations etc. This comes from the student's realization that his formal, secondary education is coming to an end, that soon he will be faced with making a career choice, or seeking a higher level of education leading to a career, and that these choices demand careful planning on his part.

RATIONALE

Goal Eight - Area 2

Self-understanding is necessary in order that a realistic self-concept be developed and a positive attitude toward the world of work be maintained.

Application

The school and home can be of great assistance to the student at this stage of his career development. Both groups should work as closely as possible during this phase of the student's development by observation and discussion. The school and the home should be careful not to pass up opportunities to discuss ways to make this exploration easier for the student.

Interest inventories and standardized test results (achievement and ability) in the student's cumulative record should be referred to so that the student be kept on as realistic a course as possible.

The student should be guided in his choice of curriculum so that when the time arrives and he decides to go on to a higher level of learning, he has the necessary math, foreign language and science requirements.

Care should also be exercised that the student's vision of careers be broadened as he makes his career and educational plans. As the student receives more information about careers and schools, he will need some individualized help in matching his interests, abilities and total personality to a particular school or career. Students who have like career or educational plans could possibly be grouped loosely and placed in situations where they could mutually benefit from each other's explorations. Clubs such as future nurses, future teachers, or a journalism club could be formed where mutual ideas and interests are discussed.

RATIONALE

Goal Eight - Area 2

In language arts courses, students could be afforded the opportunity and practice of writing formal letters to colleges and industries that interest them, seeking out the latest information, summarizing that information and sharing it with students of similar interest. In this line, practice in resume writing could also be given to the students.

It is vital in this area that the student possess as much information as possible about himself and the career or school he plans to enter. Attempts should be made to involve the parents as much as possible in this phase.

In an age of rising educational costs, scholarship information should be made available to both student and parent. Certain information such as State loan and scholarship availability, low interest loans, Federal Aid programs in existence should be understood and investigated. A financial aid brochure could be compiled and distributed to college bound students.

In the event that a student desires to remain in the local area to pursue his career and educational plans, a similar brochure could be compiled that contains information about facilities where the student could pursue these plans. Such information should not be limited to four-year institutions but should include information about area Junior College, nurses training institutions, Business Schools, Trade Schools, and apprenticeship programs in the trades as well. The students could do much of this compilation themselves.

RATIONALE

Goal Eight - Area 2

Other techniques which have been found to be useful in helping a student with his career and education plans include:

1. Arranging for students to go on a field trip primarily to acquaint them with a particular field or school, and encouraging them to take advantage of the opportunity, or that the student do this on his own.
2. Arranging meetings, career nights etc. for the student to become acquainted with career opportunities, including encouraging them to attend these presentations.
3. Teaching a class or unit, holding discussions or making a presentation on vocations, careers or job opportunities, or bby conducting a class or unit not specifically related to vocations in order to arouse the student's interest in a specific field, or interest in vocational planning in general.
4. Pointing out the opportunities in, or the appropriateness of, careers not necessarily requiring a college education.

For further suggestions see also "Teacher Strategies" section of this booklet, Areas: 2 and 3.

RATIONALE

Goal Eight - Area 3

STUDENT PARTICIPATED IN ACTIVITIES THAT SERVED AS A PREPARATION FOR HIS SPECIFIC CAREER GOAL.

Description

The behaviors in this area are concerned primarily with the student participating in activities that will serve as a preparation for a definite, specific career goal. Such activities included the taking of part-time jobs related to his future career choice, doing reports on specific careers, taking intracurricular courses which apply to a career etc.

In contrast with Areas 1 and 2, which included behaviors related to an interest in a productive life (Area 1) and the making of general educational and career plans (Area 2), the behaviors in Area 3 are of a more specific nature. The student's activities now have a direct relationship to a career goal he has chosen.

Analysis

Leading up to the student behaviors in this area, the student is likely to have passed through several stages of career discovery (i.e. phantasy, interest, exploratory, tentative, trial etc.), and has now reached a maturation level where he demonstrates to a reasonable degree, that his potentials will be commensurate with his specific career goal. It is essential that the student has made an accurate self-appraisal. He should be able to compare his abilities or potential with the ability requirements of the career. This self-appraisal may be difficult to accomplish on one's own, and sometimes objective evidence must be pointed out to the student, in order that he not aim too high or too low, and expend

RATIONALE

Goal Eight - Area 3

wasted time, effort and perhaps even money, on unrealistic goals. The behaviors of students in this area are readily observable by school personnel, in the school setting, whether these activities are a part of the student's regular school program, or of an intracurricular nature. Although most of the behaviors are on the secondary level, they are not necessarily limited to this stage of the child's development, and could be elicited and evidenced on the elementary level also.

Application

The teacher may suggest to the student various opportunities within the community whereby a student can participate in a task that is related to a student's specific career goal. Hobbies related to career goals can be explored and encouraged. The teacher can also assign reports and encourage research that will cause the student to look seriously at himself, and try to discover why he is pursuing a particular course of action.

The teacher/counselor must also be willing to help the student with his self-appraisal, using materials that are available to the school personnel (cumulative folder, anecdotal records) but which the student may not have at his disposal. The student could also be encouraged to discuss at some length with a person who has prepared for, and spent several years in a particular career, the various pitfalls and sub-tasks that are involved in following that specific career. The study of case histories of successful people may be helpful to the student and should be encouraged.

Other techniques that teacher/counselor might employ to assure that the student will participate in activities that will serve as a preparation for his specific career goal could include:

RATIONALE

Goal Eight - Area 3

1. Arranging field trips, career nights, and outside speakers or representatives in order to acquaint the students with a specific field or type of school.
2. Using multi-media approach to arouse interest in vocational planning.
3. Arranging for the student to take a vocational preference test and later discussing the results with him.
4. Making the student aware of literature concerning his career or educational interest, and encouraging him to review and acquire this literature.
5. Recognizing a student's talent, skill, or interest and making opportunities for him to use this talent or to do work in this area, or giving him a special assignment, or teaching him to do something in his interest area.
6. Informing the student of availability of scholarships, financial aid or other educational opportunities available for students with financial difficulties.

For further suggestions see also "Teacher Strategies" section of this booklet, Areas: 1, 2, and 3.

RATIONALE

Goal Eight - Area 4

STUDENT DEMONSTRATED A POSITIVE ATTITUDE REGARDING HIS OWN EDUCATION, THEREBY BETTER PREPARING HIMSELF FOR A PRODUCTIVE LIFE.

Description

The behaviors of this area are concerned primarily with the student demonstrating a positive attitude regarding his own education, and as a result of his actions, better preparing himself for a productive life. This area encompasses more behavior incidents than the other three areas combined, and because of this, the number of categories and sub-categories under this area is quite large. However, some common factors were evidenced in all the behaviors, and indicated:

1. A sense of responsibility felt by the student for self-improvement in his school work or remedying a deficiency in a subject area.
2. A realization on the part of the student of the various sub-tasks involved in and leading to a productive life.
3. An awareness on the part of the student that much personal effort and extra tasks must be performed, prior to the realization of worthwhile productivity, and
4. Participation by the student in a variety of tasks leading to self-improvement.

Analysis

The manifestation of the behaviors in this area indicates a high degree of maturity and self-understanding, dedication to self-improvement, and self-direction towards an end. A positive attitude regarding the student's own education is the result of many early childhood experiences,

and successes, and the student's behaviors witnessed now at the secondary level are a spin-off of these early experiences and successes.

The student then must be sensitive to his drives and needs, be aware of and use the opportunities to succeed at various tasks, gain the experiences necessary and surround himself with an environment that will allow this attitude to grow.

Many of the behaviors witnessed will occur during a student's leisure time, but bear a relationship to what went on in the regular classroom. Some of the behaviors will be remedial in nature. Other activities will be an enrichment exercise for the student, while others will arise from sheer interest by the student in a particular area.

Initially the prime motivation for the behaviors of this area come from without. Even early in his school life, the student can translate this motivation inwardly, will recognize the need for preparations, and his behavior will then become a manifestation of this positive attitude toward education specifically and thereby preparing himself for a productive life, generally.

Application

Measurement of the behaviors in this area is most easily accomplished by observation and discussion with the student. The student will manifest a positive attitude regarding his own education by the way in which he goes about his daily school tasks, remedial task, extra assignments, and other school activities.

Since many behaviors in this area are concerned with an enrichment activity, school personnel can insure the continuance of this positive

attitude by pointing out to students, the resource material available in the school. The teacher can help individuals or groups of students become familiar with the types of materials within the various departments in the school. He can also help the student become aware of other community resources, museums, area libraries and the like, where the student can continue to enrich himself in an area of interest or increase his mastery of a skill.

Since many behaviors also involve a student's purchasing educational materials on his own, the teacher can aid the student in the procurement of catalogues, discovering area bookstores dealing in new and used books, and art and science supply stores where a student can purchase materials to increase his knowledge in a given interest area.

The student who has done extra reading or work on a project should be allowed to demonstrate the results of his efforts, if he so desires, since this is his way of participating in a teaching and classroom activity, and may serve as an inspiration to classmates.

The teacher can also provide continued encouragement to the student who demonstrates this positive attitude, help the student find the answers he is seeking, and provide him with the opportunities to exercise and practice the skills he desires to master. This could mean that the student and teachers seek answers together.

Students hoping to succeed in college should develop the necessary learning skills early. The school personnel then should remain sensitive to this need and capitalize on the student's natural enthusiasm and inquisitiveness.

RATIONALE

Goal Eight - Area 4

All the encouragement possible should be given to the student to use the school's facilities to maintain this positive attitude, help provided him in choosing a curriculum and other school activities, and keep school life as relevant as possible for him.

For further suggestions see also "Teacher Strategies" section of this booklet, Areas: 1, 2, and 4.

SUMMARY OF TEACHER STRATEGIES

Goal Eight

1. TEACHER MADE A STUDENT AWARE OF THE VALUE AND RELEVANCE OF EDUCATION.

2. TEACHER PROVIDED INFORMATION ON CAREER OPPORTUNITIES AND/OR REQUIREMENTS.

3. TEACHER COUNSELED A STUDENT.

4. TEACHER RECOGNIZED THE TALENT, SKILL, ABILITY, OR INTEREST OF A STUDENT.

TEACHER STRATEGIES

Goal Eight

1. TEACHER MADE A STUDENT AWARE OF THE VALUE AND RELEVANCE OF EDUCATION.

   1.1 Teacher pointed out to a student how certain basic skill subjects would be useful in the student's chosen or potential career field.

   1.2 Teacher pointed out to, or discussed with, students the revelance of what one learns in school to everyday living or to succeeding in higher education.

   1.3 Teacher, in private conversation with a student, pointed out how his inappropriate in-school behavior or achievement was hurting him now or will be damaging to future success.

   1.4 Teacher offered or arranged for special help after school in a basic skill subject.

   1.5 Teacher discussed or pointed out the value of continuing formal education in some manner through and after high school.

   1.6 Teacher discussed future education in a general way with primary grade students.

2. TEACHER PROVIDED INFORMATION ON CAREER OPPORTUNITIES AND/OR REQUIREMENTS.

   2.1 Teacher encouraged or arranged for students to go on a field trip primarily to acquaint them with a particular field, school, etc.

   2.2 Teacher arranged a meeting, career night, etc. for students to become acquainted with career opportunities.

   2.3 Teacher arranged for an outside speaker to acquaint the students with a specific field, type of school, etc.

   2.4 Teacher taught a class, unit, etc., or held discussions or made a presentation on vocations, careers, job opportunities, etc.

      2.4-1 Teacher gave a class assignment to do research, a report, project, etc. on a career-related topic.

      2.4-2 Teacher had, or suggested a student interview or talk to persons working in his chosen or potential career field.

      2.4-3 Teacher attempted to convey to students the desirability of making an early possible career choice.

      2.4-4 Teacher used a multi-media approach for arousing interest in vocational planning.

2.5 Teacher, in conducting a class or unit not specifically related to vocations, aroused the student's interest in a specific field.

2.5-1 Teacher, by his performance as a teacher, served to provoke a student's interest in a teaching career.

3. TEACHER COUNSELED A STUDENT.

3.1 Teacher pointed out the opportunities in, or appropriateness of a career not necessarily requiring a college education.

3.2 Teacher informed a student of the availability of scholarships, financial aid, etc. or other educational opportunities available for students with financial difficulties.

3.3 Teacher arranged for a student to take a vocational preference test.

3.4 Teacher made himself available to talk with students having personal problems.

3.5 Teacher had a talk with a student to improve his self-image, to provide assurances, or to urge him to do his best.

3.6 Teacher made student aware of literature concerning his career or educational interest and encouraged him to review or acquire same.

3.7 Teacher, in response to a student's stated interest, provided him with information on a specific career.

3.8 Teacher had an informal talk with the student regarding potential or appropriate educational or career choice.

3.8-1 Teacher, in an informal discussion, helped a student decide on specific courses that would be beneficial or interesting.

3.8-2 Teacher, in an informal discussion, pointed out the desirability of post-high school formal education, in general or a specific type of formal education.

3.8-3 Teacher helped the student decide on a specific career or goal, including urging him to enter a particular field.

3.8-4 Teacher gave encouragement to a student who was disappointed over matters related to vocational planning, e.g., college board results, rejection by a specific college, etc.

3.9 Teacher went out of his way for a student.

3.9-1 Teacher obtained a full or part-time job for a student.

3.9-2 Teacher took a student to one or more educational institutions, or arranged for a student to meet a person in his field of interest.

3.9-3 Teacher, when a student was having academic difficulties, encouraged and guided him and arranged with other teachers or authorities to make some adjustment in his course schedule, their method of dealing with the student, etc.

4. TEACHER RECOGNIZED THE TALENT, SKILL, ABILITY, OR INTEREST OF A STUDENT.

4.1 Teacher recognized a student's talent, skill, ability, or interest, and attempted to foster this interest.

4.1-1 Teacher recognized a student's talent, skill or interest and urged him to consider this as a potential career field or field of study.

4.1-2 Teacher recognized a student's talent, skill, or interest and gave him encouragement in order to result in the development of this talent and/or to build his confidence.

4.1-3 Teacher recognized a student's talent, skill, or interest and made opportunities for him to use this talent or to do work in this area.

4.1-4 Teacher recognized a student's talent, skill, or interest and gave him a special assignment or taught him to do something in his interest area.

4.2 Teacher recognized a character trait in a student and made an assignment or request based on the student's basic need or potential.

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BOOKLET 8–A
NEEDS ASSESSMENT

QUALITY EDUCATION PROGRAM STUDY

VOCATIONAL DEVELOPMENT

PENNSYLVANIA
GOAL EIGHT

AN ESEA TITLE III PROJECT

COORDINATED AND DIRECTED BY:
Office of the County Superintendent
Bucks County Public Schools
Division of Curriculum and Instruction

IN COOPERATION WITH:
The Pennsylvania Department of Education

JUNE 1971

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PREFACE

The Bucks County Schools have for some time been committed to improving the quality of the educational offerings for its youth. Characteristic of that commitment was the manner in which officials of the Pennsylvania Department of Education, Bucks County Public Schools, Luzerne County Public Schools, Allegheny County Public Schools, Penn-Trafford School District, Pittsburgh School District, and Erie School District joined together in 1966 to draft the proposal for the Quality Education Program Study (QEPS). Conceived as a complement to Pennsylvania's pioneering efforts to assess the quality of its schools, the study was designed to define and clarify the Ten Goals of Quality Education adopted by the State Board of Education in 1965.

The following booklet is a part of the story of how Q.E.P.S. went about its ambitious task, and the results of that effort. We trust this statement of the behavioral definitions for Pennsylvania's Ten Goals of Quality Education will serve as a guide for the evaluation and improvement of teaching and learning in the schools of the Commonwealth.

Dr. George E. Raab
County Superintendent
Bucks County Public Schools

INTRODUCTION

In recent years there has been an increased interest in goal definition in education. Most efforts toward the establishment and definition of goals seems to take the form of generalizations or descriptive statements. Little, if any, data is available concerning empirical methods for defining educational goals.

Until recently, the "Goals for Quality Education" were not defined in a coherent form. An analysis of this problem revealed that most stated goals have little exact meaning for the practicing educator. Frequently, goals are stated in such general terms that any educator could convince himself that these goals are the purpose that guide his program. Goals are statements of general educational intents. While it is not absolutely necessary for goals to be stated in performance terms, the more clearly these statements are described, the more readily we can develop valid indicators of pupil behavior.

The first step in constructing an instructional program centers upon the need for a set of objectives. An objective refers to the performance or change in behavior a pupil is to exhibit upon completion of instruction. Therefore, meaningful objectives should relate to the "Goals for Quality Education". If one is "to measure objectively the adequacy and efficiency" of educational programs, these objectives must be described in terms of not what the schools do, but in what children do. One must itemize the kinds of behavior that add up to the goals for quality education if we are ever to know how children progress toward the goals or how efficient an educational program may be in furthering such

progress. Specifying goals in this way poses practical problems.[1]

The formulation and adoption of Pennsylvania's Goals of Quality Education represents a major step toward the definition of the State's educational intents, making possible an assessment of its efforts toward the fulfillment of those intents. In an effort to further increase the utility of the goals to the practitioner and evaluator, the Quality Education Program Study was proposed to review, define, and clarify the Ten Goals. Funded in 1968 under E.S.E.A. Title III, Q.E.P.S. made a unique departure from the usual "armchair philosophy" or logical approach to goal definition by deciding to employ the Critical Incident Technique. This technique was used to collect empirical data to define the goals.

The QEPS staff collected critical incident data from teachers, students, and parents from various urban, suburban, and rural areas throughout the State. These data included both student behaviors indicative of achievement of the Ten Goals and teacher behaviors effective in helping students achieve these Goals.

The resulting descriptions or definitions for each of the Ten Goals include: (1) Student Behaviors, (2) Rationales or narrative explanations, and (3) Teacher Strategies. Also, for each Goal QEPS has developed needs assessment instruments to provide the practitioner with a mechanism to systematically gather information to assess its needs and assign priorities to those needs.

[1] Educational Testing Service. A Plan for Evaluating the Quality of Educational Programs in Pennsylvania. Volume One: The Basic Program. Princeton, New Jersey: ETS, Henry S. Dyer, Project Director, Chapter I, pages 1-4 (June 30, 1965).

It is hoped that the resulting products of three years of intensive work devoted to defining Pennsylvania's Ten Goals of Quality Education will provide various segments of the educational community with information and the means to continue to improve the quality of education for the students of Pennsylvania.

Raymond Bernabei
Assistant Superintendent
Bucks County Schools

Donald L. Wright
Project Director, Q.E.P.S.

PROJECT REPORTS

The following is a listing and brief description of the reports produced by the Quality Education Program Study:

Booklet A — Project Description
A description of the project including a background and overview and a detailed report of procedures used to collect, handle, and analyze the data. Includes an appendices.

Booklet B — General Needs Assessment
Instructions
General Needs Assessment Instrument for the Ten Goals.

Booklet C — Characteristics of Incidents and Their Reporters
Gives a tabulation of various characteristics of reporters for each category and sub-category of student behavior.

Goals One through Ten each have two reports. The first is a Description of the goals, containing three basic components: (1) the categories of student behavior, (2) rationales for the areas of effective student behavior, and (3) related teacher strategies. The second report is related to the Needs Assessment of that goal and contains: (1) Instructions, (2) the general needs assessment instrument for that goal, and (3) an analysis of instruments related to that goal. The booklets for the Ten Goals are:

	Goal One - Self Understanding
Booklet 1	Description
Booklet 1A	Needs Assessment
	Goal Two - Understanding Others
Booklet 2	Description
Booklet 2A	Needs Assessment
	Goal Three - Basic Skills
Booklet 3	Description
Booklet 3A	Needs Assessment

	Goal Four - Interest in School and Learning
Booklet 4	Description
Booklet 4A	Needs Assessment
	Goal Five - Good Citizenship
Booklet 5	Description
Booklet 5A	Needs Assessment
	Goal Six - Good Health Habits
Booklet 6	Description
Booklet 6A	Needs Assessment
	Goal Seven - Creativity
Booklet 7	Description
Booklet 7A	Needs Assessment
	Goal Eight - Vocational Development
Booklet 8	Description
Booklet 8A	Needs Assessment
	Goal Nine - Understanding Human Accomplishments
Booklet 9	Description
Booklet 9A	Needs Assessment
	Goal Ten - Preparation for a World of Change
Booklet 10	Description
Booklet 10A	Needs Assessment

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NEEDS ASSESSMENT INSTRUMENTS

General — The general needs assessment instrument is comprised of sixty-three (63) area behavioral statements which encompass all of the Ten Goals of Quality Education. These area statements capsulize the various behaviors of the category scheme derived from student behaviors reported by teachers, parents and students.

Individual — The individual needs assessment instrument is a compilation of the behavior statements taken from the category scheme. These phrases or statements have been edited to accommodate their usage by elementary age children. (The individual needs assessment will be found for the appropriate goal in booklets 1A through 10A).

Test Instrument — The test instruments are a compilation of available tests relating to the Ten Goals of Quality Education. (The test instruments will be found for the appropriate goal in booklets 1A through 10A).

PURPOSE OF NEEDS ASSESSMENT INSTRUMENTS

General — The general needs assessment instrument can provide the means for a school district to assess its needs relative to the Ten Goals of Quality Education. The need for such assessment may be generated as a result of the Pennsylvania State Quality Assessment Program, or a self-initiated need to identify strengths of the educational program or to identify areas in which greater concentration may be deemed advisable. This instrument could also serve as a medium to acquaint constituents (parents and students) with the Goals of Quality Education.

Individual — The individual needs assessment instrument is designed primarily for student use, under the direction of the teacher. The purpose would be the individual student assessment of his behavior relating to the specific behavioral categories of one or more of the Goals of Education.

HOW TO USE THE GENERAL NEEDS ASSESSMENT INSTRUMENTS

General

This instrument is designed for parent, student, teacher and administrative use, or any combination of these.

The instrument included in this booklet has a rating scale from "most important" through "least important" with accompanying numerals five (5) through one (1). For illustrative purposes, let us assume a school district would request a community group to identify (in their opinion) the most important things the school is or should be accomplishing.

The group would be instructed to read the statement in bold print and the clarifying material below. They should then determine the importance of the area by placing a check above the number representing the priority they consider appropriate in that area. Tabulation would consist merely of adding the total scores for each area. The areas having the highest total score would reflect the group's priority relating to the school program.

Another approach for the use of this instrument would be to transcribe each statement and explanation on separate cards. This would allow the user to sort the items into priority stacks. Five envelopes could be provided and labeled "most important" through "least important".

There are some advantages to using cards. If the school district would utilize the instrument with several groups, or more than once with one group, the cards can be used and reused since no pencil checking is involved. A "free sort" would

simply require the placing of the cards in the appropriately labeled envelope and the tabulation would be the same as the check list tabulation. This "free sort" method might be desirable to compare priority ratings of different groups.

If a district desires, it can structure the sorting process by a "forced sort". The "forced sort" could require equal numbers of cards in each priority envelope or specify a number not to be exceeded in the "most important" and "least important" envelopes and let the others fall somewhere in the three remaining categories of "important", "average importance" or "marginal importance". The "forced sort" would force a few, manageable, top priority items for the school district to determine a course of action to pursue.

School districts may want to compare goal priorities of college oriented parents vs. another group or the school staff itself. Obviously, discretion must be practiced if comparisons are to be made outside of the school community.

The above illustrations allow school districts flexibility for local uses and needs. They are simply illustrations. Local districts may create innovative approaches with the material for their own use.

GENERAL NEEDS ASSESSMENT INSTRUMENT

GOAL EIGHT - VOCATIONAL DEVELOPMENT

Quality Education should help every child understand the opportunities open to him for preparing himself for a productive life and should enable him to take full advantage of these opportunities.

	1 Least Important	2 Marginal Importance	3 Average Importance	4 Important	5 Most Important
Areas 1, 2, 3 - SHOWS INTEREST IN CAREER OR EDUCATION. Looks for information, asks for information on a career or schools; states an interest in a career or college; picks a career or college in which he feels he would succeed; takes extra courses to prepare for college or career; takes a job that would help his career or college.	1	2	3	4	5
Area 4 - SHOWS POSITIVE ATTITUDE TOWARD EDUCATION. Works hard; completes assignments; does extra work or reworks assignments to avoid errors; says he enjoys school; takes part in school activities.	1	2	3	4	5

HOW TO USE THE INDIVIDUAL NEEDS ASSESSMENT INSTRUMENT

This instrument is designed for self-evaluation or assessment by students. The teacher may select one of the ten Goals of Quality Education, distribute the instrument for that Goal and request the students to place a check above the corresponding number representing "always" through "never". Evaluation of the check lists would reveal the individual strengths and weaknesses relative to a particular Goal.

Those behaviors receiving low scores would indicate both to the student and teacher behavioral goals to which the student should aspire. Pursuit of these goals could entail teacher-student planning of mini-units of study or projects to bring about the desired behavior. On the basis of this, teachers could collaborate on developing units of study or projects to accommodate those students who scored low on the various behavioral items.

INDIVIDUAL NEEDS ASSESSMENT INSTRUMENT

GOAL EIGHT - VOCATIONAL DEVELOPMENT

	Never	Seldom	Usually	Often	Always
	1	2	3	4	5
Area 3 - SHOWS INTEREST IN CAREER OR EDUCATION.					
3.1 Takes part in activities other than in his regular school program, to increase knowledge needed in, or about, a possible future job or career.	___ 1	___ 2	___ 3	___ 4	___ 5
3.2 Takes a high school course related to career needs.	___ 1	___ 2	___ 3	___ 4	___ 5
3.3 Works to bring up his grades to meet needs for further schooling as it relates to his career choice.	___ 1	___ 2	___ 3	___ 4	___ 5
3.4 Competes with others who have the same special talent or career interest as he.	___ 1	___ 2	___ 3	___ 4	___ 5
3.5 Works or saves in order to be able to afford to meet his goals.	___ 1	___ 2	___ 3	___ 4	___ 5

INDIVIDUAL NEEDS ASSESSMENT INSTRUMENT

GOAL EIGHT - VOCATIONAL DEVELOPMENT

		Never	Seldom	Usually	Often	Always
		1	2	3	4	5
Area 4 - SHOWS POSITIVE ATTITUDE TOWARD EDUCATION.						
4.1	Demonstrates good attitude toward school by performing successfully.	1	2	3	4	5
4.2	Demonstrates positive attitude toward school and class activities by statement or participation.	1	2	3	4	5
4.3	Demonstrates positive attitude toward school by doing extra work on assignments, by repeating work to learn, or by studying on his own.	1	2	3	4	5
4.4	Demonstrates interest in a certain subject by study, statement, or extra work efforts.	1	2	3	4	5
4.5	Takes part in extracurricular learning activities.	1	2	3	4	5

ANALYSIS OF INSTRUMENTS

The purpose of this section is to provide the Quality Education Program Study with information concerning the identification and selection of test instruments for assessing pupil development with regard to the Program's stated Ten Goals of Quality Education.

The identification and selection of test instruments for the Quality Education Program Study was done at two sites: the University of Alabama and the University of Nevada, Las Vegas. Dr. Sam Leles directed the work at the University of Alabama site, and Dr. James Case directed the work at the University of Nevada, Las Vegas site.

The test instrument identification and selection procedure at both sites was divided into three phases as follows:

Phase 1 — The initial identification at each site of test instruments for all ten goals of the Quality Education Program Study.

Phase 2 — The preliminary screening of the test instruments identified in Phase 1 for Goals I, III (Secondary), V, VIII, IX, and X (University of Nevada, Las Vegas), and Goals II, III (Elementary), IV, VI, and VII (University of Alabama).

Phase 3 — The final screening and analysis of the remaining test instruments from Phase 2.

After completion of Phase 1, the University of Alabama site and the University of Nevada, Las Vegas site, exchanged listings of the instruments thus far identified for all ten goals and completed Phases 2 and 3, using combined listings of instruments from both sites.

An extended description of each of these three phases of the identification and selection procedure as carried out at the University of Nevada, Las Vegas site, follows:

Phase 1 The Initial Identification of Test Instruments for The Ten Goals.

In mid-February, two graduate students at each University site were employed to make the initial identification search of test instruments for all ten goals of the Quality Education Program Study. The graduate students had previous teaching experience in public schools, and had taken considerable course work in testing, test analysis, test selection, etc., during their current graduate studies. All searchers were, therefore, familiar with the sources for the identification of test instruments.

The searchers were instructed to identify all possible instruments for all ten goals. The initial identification listing was to include the following for each instrument: title, form, author or publisher, date, grade level, a brief description of the appropriate uses of the instrument, and a bibliography notation on where the instrument was located during their search.

The criteria for the initial identification of an instrument was that the instrument appropriately measure any characteristic related to the following description of the ten goals:

I - Self Understanding
II - Understanding Others
III - Basic Skills
IV - Interest in School and Learning
V - Good Citizenship
VI - Good Health Habits
VII - Creativity
VIII - Vocational Development
IX - Understanding Human Accomplishment
X - Preparation for a Changing World

The following is a summary of the number of instruments initially identified by goal at the University of Nevada, Las Vegas site, during Phase 1:

I - 63	VI - 44
II - 43	VII - 35
III - 61	VIII - 37
IV - 36	IX - 35
V - 27	X - 28

These numbers of instruments were identified by a thorough search of the facilities at the University of Nevada, Las Vegas, and at the University of California at Los Angeles.

A listing of the above identified instruments was then sent to the Alabama site. A combined listing of the instruments identified at both sites, at the completion of Phase 1, gave the following number of instruments by goal (corrected for instruments concurrently identified at both sites):

I - 74	VI - 65
II - 56	VII - 57
III - 87	VIII - 62
IV - 53	IX - 55
V - 49	X - 50

A table summary of the numbers of test instruments identified and analyzed by goal for the Ten Goals of Quality Education is listed below. This listing and subsequent final selection of goal-related instruments are not to be considered as exhaustive nor listed in priority form.

S U M M A R Y

Number of Test Instruments Identified and Analyzed by Goal for The Ten Goals of Quality Education

Goal	No. of Instruments Identified in the Initial Search (UA + UNLV)	No. of Duplicate Instruments	No. of Instruments Analyzed	No. of Instruments Selected
I	84	10	74	26
II	65	9	56	18
III	97	10	87	39
IV	59	6	53	14
V	54	5	49	17
VI	71	6	65	20
VII	57	0	57	10
VIII	65	3	62	24
IX	59	4	55	19
X	53	3	50	22
Totals	664	56	608	209

Phase 2 The Preliminary Screening of the Test Instruments Identified in Phase 1.

The University of Nevada, Las Vegas site, performed a preliminary screening of test instruments from the above described combined listings for Goals: I, III(Secondary), V, VIII, IX, and X. The University of Alabama site concurrently performed a preliminary screening of the instruments from the combined listings for Goals: II, III(Elementary), IV, VI, and VII.

The following criteria were used at both University sites for the preliminary screening of the initially identified instruments from Phase 1 relating to each goal.

Goal One

The instrument must measure and/or identify those characteristics or attributes that provide information that would permit an individual to develop a better understanding of himself and his worth to society.

Goal Two

The instrument must measure and/or identify the individual's extent of acquiring understanding and appreciation of persons belonging to social, cultural, and ethnic groups different from his own.

Goal Three

The instrument must measure and/or identify the individual's extent of acquisition and/or mastery of the basic skills in the use of words and numbers.

Goal Four

The instrument must measure and/or identify the individual's acquisition of positive attitudes toward school and toward the learning

process.

Goal Five

The instrument must measure and/or identify habits and/or attitudes of an individual that are associated with responsible citizenship.

Goal Six

The instrument must measure and/or identify the individual's acquisition of good health habits and understanding the conditions necessary for the maintenance of physical and emotional well-being.

Goal Seven

The instrument must measure and/or identify the traits or characteristics encouraging creativity.

Goal Eight

The instrument must measure and/or identify the individual's knowledge and/or understanding of the opportunities open to him for preparing himself for a productive life.

Goal Nine

The instrument must measure and/or identify the individual's knowledge of, and/or understanding of, and appreciation of, human achievement in the natural sciences, the social sciences, the humanities, and the arts.

Goal Ten

The instrument must measure and/or identify those characteristics or attributes of an individual that relate to preparation for a life of change and unforeseeable demands.

Phase 3 The Final Screening and Analysis of The Test Instruments Remaining After Phase 2.

After the preliminary screening of the test instruments in Phase 2, the total number of instruments for each goal was reduced to approximately half.

The following criteria were used at both sites for the final screening and analysis of the test instruments remaining from Phase 2:

Goal One

The instrument must measure and/or identify characteristics and/or attributes of self concept, and knowledge and/or understanding of societal structures and relationships, and his relationship to these. Examples of the foregoing were: social emotional adjustment; response to ideas, people and established institutions; sense of personal worth, personal freedom, belonging; being with others; political, social, and religious values; emotional adjustment; personal preferences; self confidence; needs and problems identification; friendliness; integrity; leadership and responsibility; value complex development; emotional maturity.

Goal Two

The instrument must measure and/or identify traits or characteristics an individual achieves in attempting to understand and appreciate other persons belonging to social, cultural, and ethnic groups. Examples of the foregoing are: social standards, anti-social tendencies, community relations; generalized attitudes toward nationality, racial, and religious groups; a study of what different people will do in different situations; morality and personality traits, perception of others; independence, leadership, interpersonal traits; and social distance.

Goal Three

The instrument must measure and/or identify the individual's extent of acquisition and/or mastery of the basic skills in: acquiring ideas through listening and reading; communicating through writing and speaking; handling mathematical operations, and the ability to reason logically and to respect evidence. Examples of the foregoing were: assessment of reading comprehension, progress and growth; assessment of vocabulary, reading speed and accuracy; measurement of auditory memory and alertness; sound-symbol association ability; sensitivity to grammatical structure; listening ability; understanding of word meaning and sentence meaning; location of information; ability to select central ideas and skim; ability to think critically, draw influences, recognize assumptions and reason logically; spatial and numerical reasoning; measurement of concepts and skills in structure and number; recognition and application of mechanics of writing, building of sentences and paragraphy; measurement of arithmetic problem-solving abilities.

Goal Four

The instrument must measure and/or identify positive attitudes toward school and learning. Descriptions include school life; interest index; attitudes toward disciplinary procedure, play, vocation and school work; opinion of school, interests, and subjects.

Goal Five

The instrument must measure and/or identify knowledge of and habits and/or attitudes associated with: loyalty to the fundamental principles of a free democratic society; effective participation in group activities either as a leader or follower; an appreciation and acceptance of the necessity for earning a living; the acceptance of the basic

ethical values of group living, e.g., honesty, concern for the less fortunate, etc. Examples of the foregoing were: assessment of knowledge and understanding of political participation, government organization and services; familiarity with issues that confront citizens in a democrary, e.g., urban problems, economic affairs, foreign policy; knowledge and understanding of the United States Constitution and federal government policies and political participation; assessment of attitudes toward changing the Constitution; assessment of actual and desired political-social activism; assessment of values relative to political controls; measurement of knowledge and understanding of democratic principles of the United States; understanding of social change; measurement of social conformity, prejudice, and degree of open/closed mind; assessment of active involvement in current social or political problems; identification of economic wants; measurement of appreciation of the role of economic factors in one's life.

Goal Six

The instrument must measure and/or identify health behavior from the viewpoint of student practices; understanding conditions necessary for maintaining good health habits; knowledge and application of safety education concept; practices and attitudes one holds regarding health habits; the causes and effects related to good health.

Goal Seven

The instrument must measure and/or identify factors in creative thinking. Examples of related terms are: logical thinking, divergent thinking, ideational fluency, expressional fluency, optimistic-imagination, style preferences, generalizing, analyzing, synthesizing and evaluating.

Goal Eight

The instrument must measure and/or identify the individual's knowledge and/or understanding of the educational and vocational opportunities open to him for preparing himself for a productive life. It is explicitly implied that the test instruments selected for this goal will also be used for educational/vocational guidance purposes. Examples of the foregoing were: measurement of mental abilities important for academic success and related endeavors outside the classroom; measurement of scholastic ability of students planning to go to college; prediction of success and satisfaction in an occupation; preference for, liking for, or interest in a vocation; assessment of work values; measurement of aptitude for skills in selected occupations; interest in selected occupational activities; measurement of abilities necessary for success in selected occupational fields; measurement of attitudes toward a vocation; assessment of personal qualities related to job success or failure; educational and vocational planning inventories.

Goal Nine

The instrument must measure and/or identify the individual's knowledge of and/or understanding of, and appreciation of, human achievement regarding the transforming conceptions of modern science, basic sociological and psychological principles, and the differentiation of the worthy from the worthless in the arts and humanities. Examples of these were: measurement of understanding of music and artistic heritage; measurement of knowledge and comprehension of literature; assessment of understanding of recent social and scientific developments; knowledge, understanding, and appreciation of art, music, drama, and philosophy; measurement of awareness of works of famous composers, writers, and

artists; measurement of ability to interpret literary materials; measurement of understanding of general scientific principles, the nature of scientific inquiry and scientific reasoning.

Goal Ten

The instrument must measure and/or identify those characteristics or attributes of an individual that relate to preparation for a life of change and unforeseeable demands. This goal explicitly implies a necessity for continuing education - both formal and/or informal, both recreational and/or vocational (or occupational) - to fill the life-long needs of the individual and society. Selection criteria for test instruments for this goal must, therefore, reflect general interests, attitudes, preferences, etc., toward work and leisure; thus the selected instruments would provide information useful to an individual for future leisure-time and vocational planning - planning that is necessary because of the rapidly changing economic and recreational nature of our world. Examples of these were: identification of behavior preferences; identification of personal problems, e.g., personal finance, planning for future, personal interests; measurement of variability and adaptability; desire for responsibility; interest in self-employment; assessment of aspirations at both idealistic and realistic levels; measurement of independence and resourcefulness; assessment of values which influence manner of coping with life-problems; classification of individual as to type, theoretical-non-theoretical, political-non-political, etc.

GOAL EIGHT: VOCATIONAL DEVELOPMENT — I N S T R U M E N T S

T I T L E	FORM	AUTHOR OR PUBLISHER	DATE	GRADE LEVEL	DESCRIPTION	REF. NO.
Henmon-Nelson Tests of Mental Ability, R'vd. Edition (TMA)	A&B	Houghton Mifflin Co.	1961	3-6 6-9 9-12 13-17	Measures those facets of mental ability important for academic success and for related endeavors outside the classroom. Time: Approx. 35 mins.	503
Preliminary Scholastic Aptitude Test (PSAT)		Educational Testing Service		10-12	Designed to measure the scholastic ability of high school students who may plan to go to college.	205
Strong Vocational Interest Blank for Men		Psychological Corporation	1969	High Sch.	22 homogeneous basic interest scales. Administrative indices. Aids in predicting success and satisfaction in occupation. Machine-scoring only.	649
Thurstone Interest Schedule		Psychological Corporation		High Sch.	Checklist. Subject expresses preference or liking for 100 pairs of vocations or job names. Yields profile of preferences for 10 fields.	647
Strong Vocational Interest Blank for Women		Psychological Corporation	1969	High Sch.	Provides 58 occupational scales plus 10 basic interest scales. Administrative indices.	648

Work Values Inventory		Houghton Mifflin Co.	1969	9-12	Subject rates 45 statements having to do with work values. Time: 15 mins.	594
Flagman Aptitude Classification Test (FACT)		Science Research Assocs.	1957	9-12	Measures aptitude for 19 skills essential to success in 37 broad occupational areas.	535
Minnesota Vocational Interest Inventory (MVII)		Psychological Corporation	1965	Male 15 yr. & over	Measures interests in occupations for which a college education is not required. Test presents 158 statement-triads. Within each triad, examinee chooses statement liked best and liked least. No time limit. Requires approx. 45 mins.	506
Occupational Interest Inventory		California Test Bureau	1956	7-16 9-16 & Adults	Items describe occupational activities in six fields: Personal-social, natural, mechanical, business, the arts and the sciences. Forced choices between paired statements. Time 30-40 mins.	507
D.A.T. Space Relations Test	A	G. K. Bennett, H. G. Seashore, & A. G. Wesman			Measures ability to think in terms of three-dimensional structures. Important abilities in the fields of drafting, architecture, art, surgery, design	179

GOAL EIGHT: VOCATIONAL DEVELOPMENT — I N S T R U M E N T S

T I T L E	FORM	AUTHOR OR PUBLISHER	DATE	GRADE LEVEL	DESCRIPTION	REF. NO.
Revised Minnesota Paper Form Board T Test	AA BB MA MB	R. Likert, W. H. Quasha	1970	9-Adult	Paper and pencil test measuring spatial perception as indicated by the ability to visualize the assembly of two-dimensional geometric shapes into a whole design. Predicts success in mechanical jobs and shopwork, engineering, design, drafting, power sewing machine operation	180
Holzinger-Crowder Uni-Factor Tests		K. J. Holzinger, et.al.		7-12	A battery of tests designed to aid in the educational and vocational guidance of students: verbal, spatial, numerical, reasoning	263
Curtis Interest Scale		J. W. Curtis	1959	9-16	10 scores: business mechanics, applied arts, direct sales, production, science, entertainment, interpersonal, computation	268
Edmiston RO Inventory		R. W.Edmiston	1956-57	7-12	Interests in 14 areas: social work, social improvement, social prestige, mechanical, numerical-computational, persuasive, clerical, business-economic, managerial authority and supervision, total	269

Fowler-Parmenter Self-Scoring Interest Record	H. M. Fowler & M. D. Parmenter	1958-60	9 & up	12 scores: outdoor, managerial, social service, verbal, operative, skilled mechanical, scientific, persuasive, clinical, artistic, numerical	271
Making Career Decisions	ETS Princeton, New Jersey	1965	11	Adapted from Katz' Guidance Inquiry Test. This test consists of 27 multiple-choice questions. Time: 25 mins.	451
Remmers Attitude	Division of Educational Reference Purdue Univ.			These scales purport to measure such generalized attitudes as those toward any vocation.	452
Lee-Thorpe Occupational Interest Inventory R'vd.	California Test Bureau	1956	7-8 9--Adult	Two levels. Ten scores grouped into the following categories: fields of interest, types of interest, levels of interest	215
Flanagan Aptitude Classification Tests (FACT)	Science Research Assocs., Inc.	1953-57	12-16	Battery of 19 tests. Oriented toward vocational guidance rather than educational guidance	358
General Aptitude Test Battery (GATB)	U. S. Employment Service	1942	12-16	Based upon work in which experiental test batteries have been prepared for each of a number of different jobs. Measures ten ability factors	359
Kuder Preference Record Vocational Preference Survey C	Science Research Assoc., Inc.	1934-56	9-16 Adult	Yields scores for following interest clusters: Outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service and clerical	362

GOAL EIGHT: VOCATIONAL DEVELOPMENT I N S T R U M E N T S

T I T L E	FORM	AUTHOR OR PUBLISHER	DATE	GRADE LEVEL	DESCRIPTION	REF. NO.
Gordon Occupational Checklist		L. Gordon	1961-63	8-12	An interest checklist for use in counseling and guidance work with high school students who will not go to college	150
Ohio Vocational Interest Survey (OVIS)		Harcourt, Brace & World, Inc.	1969	8-12	Designed to assist students with with their educational and vocational planning	151
Job Analysis and Interest Measurement		Education Testing Service		10-12	Seeks to assess the personal qualities of the worker which have an influence on success or failure in a job.	201

I N D E X

GOAL (Cross Reference)	REFERENCE	CODE NO.
#8	Bligh, H. F., G. J. Robertson, and B. C. Wadell. Catalog of Standardized Tests and Related Services. New York: Harcourt, Brace and World, Inc., 1970-71, p. 47.	150
#8	Ibid., p. 48.	151
#8	The Psychological Corporation Test Catalog 1971. New York: Test Division, The Psychological Corporation, 1971, p. 5.	179
#8	Ibid., p. 14	180
#8	Bulletin of the Office of Special Tests. New Jersey: Educational Testing Service, p. 1.	201
#3, #8	Testing Programs Special Services Instructional Activities. New Jersey: Educational Testing Service, 1970-71, p. 15.	205
#8	Mehrens, W. A. and I. J. Lehmann. Standardized Tests in Education. New York: Holt, Rinehart and Winston, Inc., 1969, p. 228.	215
#8	Buros, O. K. (Ed.) Tests in Print. New Jersey: The Gryphon Press, 1961, #1378.	263
#8	Ibid., #1861.	268
#8, #10	Ibid., #1863.	269
#8	Ibid., #1865	271
#8	Thorndike, R. L. and E. Hagen. Measurement and Evaluation in Psychology and Education. New York: John Wiley and Sons, Inc., 1967, p. 576.	358
#8	Ibid.	359
#8	Ibid., p. 587	362

#8	A Plan For Evaluating The Quality Of Educational Programs In Pennsylvania. Volume One: Basic Program: A report from educational testing service to the State Board of Education, June 30, 1965.	451
#8	Educational Testing Service Annual Report. 1964-1965. New Jersey: Educational Testing Service, 1966.	452
#3	Linden, James D. and Linden, Kathryn W. Tests On Trial, Boston: Houghton Mifflin Company, 1968.	503
#8	Ibid.	506
#8	Ibid.	507
#8	Berdie, Ralph F., et. al., Testing in Guidance and Counseling, New York: McGraw-Hill Book Company, Inc., 1963, p. 245.	535
#8	Houghton Mifflin Company 1968-1969 Educational Materials Catalog, p. 162.	594
#8	Psychological Corporation Test Catalog, Psychological Corporation: New York, 1971, p. 38.	647
#8	Eson, Morris E., Psychological Foundations of Education, Holt, Rinehart and Winston, Inc., 1968, p. 301.	648
#8	Psychological Corporation Test Catalog, Psychological Corporation: New York, 1971, p. 38.	649